

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF OHIO  
WESTERN DIVISION

ERIC L. JEFFRIES,	:	
	:	Case No. C-1-02-351
Plaintiff,	:	
	:	(Judge Beckwith)
vs.	:	(Magistrate Judge Hogan)
	:	
CENTRE LIFE INSURANCE COMPANY,	:	<b><u>DEFENDANT'S MOTION IN</u></b>
et al.,	:	<b><u>LIMINE TO EXCLUDE</u></b>
	:	<b><u>TESTIMONY WHICH RELIES ON</u></b>
Defendants.	:	<b><u>PET AND SPECT SCANS</u></b>

Now comes Defendant Centre Life Insurance Company and moves for an order in limine excluding any reference to or reliance on PET and/or SPECT scans during the trial of this matter. The reliability of these scans has not been established and Plaintiff has not identified any witness who can authenticate these scans. Even if these scans could be authenticated, they are not proper diagnostic tools. This motion is made pursuant to Rules 403, 702 and 901 of the Federal Rules of Evidence.

Respectfully submitted,

s/Peter M. Burrell

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**MEMORANDUM IN SUPPORT**

**I. ARGUMENT**

**A. There Are No Witnesses Identified By Plaintiff Who Are Qualified To Offer Testimony Regarding PET And SPECT Scans.**

Defendant previously moved to exclude the reports of Drs. Pretorius and Hyde and any testimony proffered by them to the extent that it relied upon those witnesses' PET and SPECT scans for incorrect diagnostic purposes. In granting Centre Life's *Daubert* Motion with regard to Dr. Pretorius, the Court held that:

Dr. Pretorius admitted that PET and SPECT scan imaging is not a widely accepted means to diagnose chronic fatigue syndrome.

Rulings by the Court on *Daubert* Motions and Summary Judgment Motions at p. 4, attached as Exhibit A. The Court also stated:

Moreover, even if PET and SPECT scans could be used as part of the total diagnostic picture, Dr. Pretorius admitted that it is not within his expertise to assemble the medical data to make that diagnosis.

*Id.* The Court went on to hold, however, that PET and SPECT imaging might in fact be helpful as a diagnostic tool. *Id.* at p. 5. To this end, the testimony of Dr. Hyde was not excluded.

Even if the Court's premise that PET and SPECT scans could be a helpful diagnostic tool is accepted, it is clear that Dr. Hyde is not an appropriate witness to evaluate that tool and therefore cannot offer testimony with regard to his conclusions from the scans. Dr. Pretorius was the only expert witness identified by Plaintiff who could offer an opinion regarding the interpretation of PET and SPECT scans. His testimony was unreliable under *Daubert* and properly excluded by the Court.

Dr. Hyde admits that he is not an expert with regard to the interpretation of PET and SPECT scans. *See* Exhibit B, relevant pages of Hyde deposition at p. 56. Dr. Hyde

acknowledged that he would defer to a neuroradiologist as to whether the SPECT scan is reliable in the diagnosis of vasculitis and could not identify any medical resource that would support reliability. Finally, Dr. Hyde acknowledged that there is not enough scan research in North America to make the supposition that a PET or SPECT scan is appropriate for the diagnosis of chronic fatigue and that under current scientific standards, the use of PET and/or SPECT scans are not generally accepted as appropriate for the diagnosis of chronic fatigue. *See id.* at p. 63. Like Dr. Pretorius' opinion, Dr. Hyde's reliance on SPECT/PET scans to support his diagnosis of an auto immune-disorder must be excluded.

Dr. Hyde is a family physician. He admits that he cannot interpret the results of PET and SPECT scans and would defer to an expert as to their diagnostic usefulness. Despite this admission, he claims Mr. Jeffries' scan is abnormal and that he relied on it in his diagnosis. Plaintiff has not identified an expert who can offer this opinion. At the final pretrial conference, Plaintiff offered to bring in a previously undisclosed expert who he claimed was qualified to offer testimony on this issue. This is impermissible.

Plaintiff has often argued what he characterizes as due process concerns to the Court. He has attempted to limit the scope of expert witness testimony and eliminate treating physician testimony altogether. His counsel often argues that he has not had the opportunity to depose his client's own treating physicians because Defendant did not tell him to do so. Despite his arguments of unfair surprise and lack of time, he has now indicated his intent to call additional witnesses to offer the PET/SPECT testimony that Dr. Hyde cannot. In addition to being prejudicial this will only serve to further complicate and delay an already complex case.

**B. The Medical Community Does Not Accept SPECT Scans To Diagnose Immune Cerebritis.**

Dr. Kirk Frey, M.D., Ph.D. is a staff physician and professor in the Radiology and Neurology departments at the University of Michigan, Ann Arbor, Michigan. *See* Dr. Frey's report attached hereto as Exhibit C. He is also a research professor in The Mental Health Research Institute at University of Michigan. As a professor at the University of Michigan Medical Center, Dr. Frey supervises and teaches medical students, residents and fellows in the use and interpretation of nuclear medicine procedures including brain PET and SPECT scanning. He has also served as a consultant to U.S. committees on the use of PET and SPECT scans. His Curriculum Vitae is attached to his report as attachment 1. Dr. Frey is familiar with the current standards of care and practice regarding the clinical uses of brain imaging.

It is generally accepted in the nuclear medicine community that PET and SPECT brain imaging can be established diagnostic procedures in a limited number of clinical studies. *See* Exhibit C, Frey report at paragraph 7.

In many of these, the imaging procedure is not able to independently establish a diagnosis, but rather, serves to refine and establish clinical diagnosis made unequivocally on the basis of other information. There are presently no data upon which to rely in the use or interpretation of clinical PET or SPECT imaging procedures for diagnosis of immune cerebritis, cerebral vasculitis, chronic fatigue syndrome, depression, obsessive compulsive disorder or somatization disorder.

*See id.* at paragraph 7. As Dr. Frey's report confirms, Dr. Hyde's reliance on a SPECT scan which he cannot even read to diagnose vasculitis is misplaced.

Moreover, the opinion that SPECT scans cannot be used to make the diagnoses sought by Dr. Hyde is not limited to Dr. Frey, but is in fact "shared by national panels of experts in nuclear medicine and neurology." (Dr. Hyde is notably not one of these experts; by his own admission). *See* Frey Report at Paragraph 8.

A recent publication in The Journal of Nuclear Medicine (“Ethical clinical practice of functional brain imaging, “The Journal of Nuclear Medicine, 37: 1256-1259, 1996; Attachment II) also indicates a lack of established diagnostic criteria for immune cerebritis effects in brain FDG PET or cerebral perfusion SPECT scans. It further states that: ...while research SPECT and PET studies in patients with mild traumatic brain injury, substance abuse, infectious diseases states (such as HIV-related encephalopathies), neurotoxic exposures, environmental illness and foreign body reaction show promise, there is not, as of this writing, adequate evidence to support the use of PET or SPECT in these instances to establish cause-and-effect relationships.”

Regarding the use of SPECT brain perfusion studies in forensic settings, the authors state: “When there are few controlled experimental studies and no available sensitivity and specificity rates, the forensic application of non-replicated, unpublished or anecdotal SPECT or PET observations is inappropriate and has ominous implications. This can lead to unsupportable conclusions if introduced as ‘objective evidence’ linking neuropsychologic parameters (such as blood flow or metabolism) to a defendant’s judgment, insight, or motives associated with the commission of a crime, or as an ‘offer of proof’ of a traumatically caused or substance-induced illness or injury”.

*See* Frey Report at Paragraph 8. As the reports cited by Dr. Frey makes clear, although PET and SPECT scans may be used in the management of patients with certain disorders such as stroke, epilepsy, brain tumors and dementia, the use of PET and SPECT scans to diagnose neurological, psychiatric or behavioral deficit is not generally accepted. This report is a culmination of the opinions of numerous committee members from many medical institutions.

In this case, Dr. Frey reviewed the brain scans conducted on Mr. Jeffries and concluded that there was “no scientific basis for performing any of these imaging tests to evaluate or diagnose immune cerebritis (encephalomyelitis), vasculitis, or chronic fatigue syndrome.” *See* Frey Report at Paragraph 9. This is because there are no commonly accepted and uniform scan patterns that can be used in the interpretation.

Specifically, there are no scientific reports to establish a reliable or specific abnormality or pattern of abnormality in patients with proven diagnoses of these conditions. The presence (or absence) of any findings in these PET and SPECT brain imaging tests, thus, has no bearing on the presence (or absence) or these disorders. Furthermore, the brain PET and SPECT imaging tests are not

established scientifically as valid diagnostic tools for presence of depression, obsessive compulsive disorder or somatization disorder. Accordingly, the use of PET or SPECT imaging studies is inappropriate and ineffective for the evaluation of these psychiatric diagnoses.

*See* Frey Report at ¶ 9. Any reliance by Dr. Hyde to the contrary is prejudicial and will serve to confuse the jury.

## **II. CONCLUSION**

As already determined by the Court, the report of Dr. Pretorius and any testimony from him must be excluded in its entirety. PET and SPECT scans cannot be used scientifically to diagnose the presence or absence of chronic fatigue, depression, somatoform disorder, cerebritis, encephalomyelitis or vasculitis. These diagnoses can only be supported by the clinical evaluation of a neuropsychologist and neuropsychological testing, such as was performed by Dr. Hartings. Any testimony by Dr. Hyde regarding his reliance on PET/SPECT scans as a diagnostic tool must also be excluded. Dr. Hyde himself admits that the use of PET and SPECT scans is not scientifically supported. Any reference to the PET/SPECT scan is irrelevant, more prejudicial than probative, will only serve to confuse the jury and must be excluded under Rules 403, 702 and 901 of the Federal Rules of Evidence.

Respectfully submitted,

s/Peter M. Burrell

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing has been filed with the Court by electronic means on this 14<sup>th</sup> day of April 2004. Notice of this filing will be sent to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

s/Peter M. Burrell  
Peter M. Burrell, Esq.

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